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extended attributes

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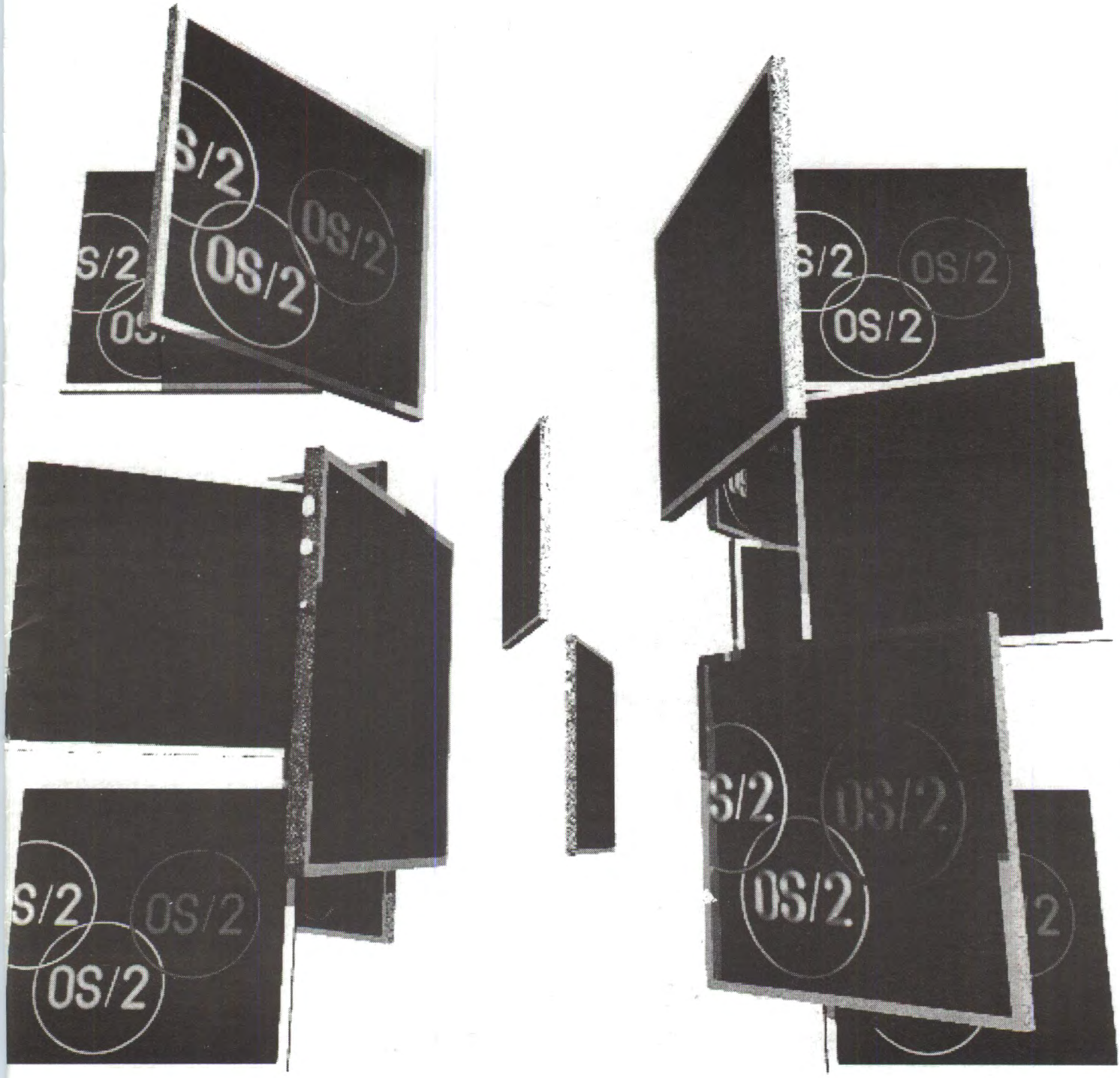

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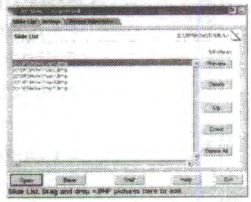

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A security checklist for e-businesses

by Bill Schindler, Editor-in-Chief

Recent denial of service attacks on various large Web sites have highlighted the need to protect your business online. With that in mind, the following checklist from IBM should help you make your Web site more secure.

E-business Security Checklist

1. Implement a thorough and aggressive security policy that is reflected throughout your business, including firewall configurations, access controls and employee communications.
2. Conduct a security awareness campaign to regularly remind employees of their security responsibilities (via Web-based certification or regular emails, for example).
3. Install a firewall on outside borders, as well as internal (between HR and engineering departments, for example). Be sure to change the default settings, which can be easily defeated.
4. Use intrusion detection software. This is like having burglar alarms and motion detectors, but for your network. Just as with the firewall, it's important to have intrusion detection on external and internal networks.
5. Distribute antivirus software. The best antivirus systems will have an easy, effective update mechanism to ensure thorough coverage.
6. Establish rules for password selection. Determine very clear guidelines for passwords (such as "six characters with at least one numeral") and an easy way to verify whether or not a password is acceptable. Passwords should also be changed periodically.
7. Perform security audits on a regular basis. These should be unannounced and random—some electronic, some physical; some stealthy, and others blatant. The ultimate goals of these audits are to get into the target system, access valuable data if possible, and determine if the intrusion was even noticed.
8. Designate someone as the main network security contact and determine clear procedures for reporting and responding to security issues. Employees should clearly understand who to report incidents to and should report all incidents that seem to breach the security policy.
9. Ensure that system administrators stay abreast of security advisories make security-related changes in a timely manner. These are the folks on the front lines, so they need to be as proactive as possible and in a position to react quickly to security issues.
10. Have a clear policy for action when an employee leaves for any reason. Actions to take quickly include disabling an ex-employee's building and computer access, deleting or redistributing computer accounts, and changing all passwords and access codes that employee may have known.

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President **Dick Krueger** president@possi.org
Vice-President **Bill Teags** wteags@nbond.com
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Board member **Julian Thomas** jt@epix.net
Board member **Chuck McKinnis** mckinnis@attglobal.net
Membership **Evelyn Hitch** hitch@ibm.net

Editor-in-chief **Bill Schindler** editor@possi.org
Asst editor **Esther Schindler** esther@bitranch.com
Reviews editor **Craig Greenwood** reviews@possi.org
SIG news editor **Ernie Fisch** ernfisch@indirect.com
Contributing editors **David Both, Joel Frey, Craig Greenwood, David Wei, John Wubbel, Alan Zeichick**
Ad manager **Marilyn Pizzo** mpizzo@mindspring.com

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Phoenix OS/2 Society, Inc
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Can you recover from your backups?

by Julian Thomas

There are many approaches to backing up your data and system setup. That's the easy part. But the point of backing up is to enable you to recover files quickly and reliably. If you can't do so, you've wasted all that time and effort.

Restoring a single data file that you lost from an "oops!" deletion isn't necessarily a good test. Almost any method will let you recover a single file or directory while your system merrily runs along. However, it's important to do a "what if" exercise, and convince yourself that you will be able to restore the entire system when you cannot boot normally to your desktop or access your hard disk.

Most of us know, by now, that it's not a case of *if* a hard disk will fail; it's a case of *when*. Having good backups is essential, but being able to use them to recreate your system environment is just as important.

Command line tools

The first requirement in testing your backup tool is to ensure it includes a command line program allowing you to restore a partition. If it doesn't, you should seriously consider another backup program.

Assuming that your backup program does have this capability, you need to make a set of boot diskettes that include the device drivers necessary for your hard drive and your backup device. BOOTOS2 (which I've written about in other issues of extended attributes) is almost essential for this, but when BOOTOS2 is done you may want to review (and probably tweak) the boot diskette's CONFIG.SYS and the diskette contents.

For example, the following line in CONFIG.SYS causes the boot process to pause and ask for the second diskette:

```
DEVICE=\OS2\BOS2DD.SYS
```

So you can put the DEVICE statements for the drivers on the second diskette after this line. BOOTOS2 will probably set up more device drivers than you need. I commented out the CD-ROM stuff (and deleted their drivers) to make more room on the diskettes.

In my case, I have IDE hard drives, and I use a SCSI-attached Fujitsu MO drive for backups. A homegrown REXX program creates my backups, which are ZIP files, created using Infozip's ZIP.EXE. My boot diskettes have the BASEDEV statements to support IDE and my SCSI card:

```
BASEDEV=IBM1S506.ADD
BASEDEV=OS2DASD.DMD
BASEDEV=SYM8XX.ADD /V
BASEDEV=OS2ASPI.DMD
BASEDEV=OS2SCSI.DMD
```

and for the MO disk driver itself:

```
DEVICE=\OS2\MODISK.SYS
```

Of course, the files refererced by these lines must also be on the boot diskettes, in the \OS2 subdirectory. Your setup will depend on the drivers you need for your hard drive and your backup device.

You should also include a few essentials, like FDISK.COM and FORMAT.COM, at least on the second boot diskette. I also include CHKDSK, XCOPY, ATTRIB, an editor, and UNZIP in the OS2 subdirectory of the second diskette.

If the command line program to restore your backup fits, add it. Otherwise, you need to create another utility program diskette with that program and any additional files it requires. This should all be covered by the documentation for your backup program. In my case, all I need is UNZIP.EXE.

Testing, testing

Once you have created these diskettes, the next thing is to test them. Boot from the diskettes. Make sure you can access your backup device. You may not want to test the restore of your boot partition, but you should verify that you can restore a partition using only the resources you have on diskette.

Over the years, I have used this process, or a similar one, to recover from a hard disk failure (once a new drive was installed). I've also used it in situations where I was doing some sort of system reconfiguration, such as moving hard drives around.

This article was inspired when I used FDISK to blow away the Windows 95 partition on my boot drive to make more space for the OS/2 C: partition. When I booted from diskette and ran Partition Magic, planning to resize the surviving C: partition, it gave me an error message about the partition table, which their manual blamed on OS/2 FDISK. While the system booted and ran with no other problems, I wanted to clean this up. My procedure was to back up the two partitions on the physical drive, FDISK it to empty space and then recreate partitions, format the partitions as HPFS, and then restore from my backup MO disks. I'm happy to report that it worked well. My system was restored to exactly where it had been—except that the C: partition is larger than it had been.

Julian Thomas is a retired IBM engineer and programmer who uses OS/2 for almost everything, and is a member of the Phoenix OS/2 Society board of directors. He, his wife Mary Jane, and Matinicus (a red Maine Coon cat) live in the beautiful (but currently icy) Finger Lakes Wine Country of New York State.

Hell freezes over

It looks like IBM will update the OS/2 Warp client after all

by Esther Schindler

Be careful what you wish for!

When you need to install a copy of OS/2, how many fixpacks do you need to load before the system is usable and relatively up to date? How much editing do you need to do to the Install Disk 1 before the system will load—or before the installation process recognizes your new 18GB hard disk? How many Web sites do you need to search, for how many drivers? And how long does it take to accomplish all this? Way too long, right?

For the last year or two, many of us in the OS/2 community have said that, if IBM won't actually come out with a new version of OS/2, complete with major feature enhancements and cool new stuff—well, we'd be happy with a new cut of the CD that would enable us to stick a CD-ROM in the drive, start the installation, and walk away.

It looks like we will get our wish.

The convenience pack

Although it won't announce the news with any fanfare, IBM is quietly making plans to "refresh" the client version of OS/2. According to my sources, the new OS/2 client, dubbed a "convenience pack," will be based on the OS/2 Warp Server for eBusiness code base.

Don't expect any new functionality, though the client will include the feature enhancements that have been rolled out in IBM's frequent fixpacks over the years (such as DVD and USB support, Java 1.1.8, Netscape Navigator 4.6.1, and the latest batch of device drivers). This updated client is essentially a feature rollup, bringing all the previous fixes onto one CD-ROM.

This client refresh is part of IBM's internal plans to support and enhance the OS/2 product line for at least seven more years, my sources tell me.

So what's in it?

After *Sm@rt Reseller* published my article describing the information above, I got a lot of email asking me for more details. People want to know if items on their personal wish lists will be included. They want to know what's left out. They want to know if the convenience pack will support symmetrical multiprocessing (SMP), the Logical Volume Manager, JFS, or other server-side features in OS/2 Warp Server for eBusiness. And if it doesn't, what real benefit will they get from the different code base? And when, when, when?

Unfortunately, I don't have clear answers. Keep in mind that IBM hasn't formally announced this updated version; they haven't made any public promises. And, because I must rely on multiple sources for my information, I can only be sure—or at least reasonably sure—of the information that is common to all of them. When it comes to feature lists, the data is inconsistent or inconclusive. I don't know.

Nor have I heard any clear time frame. I'm given the sense that we could see this sometime in the second quarter of 2000, but no one has said so explicitly. However, I'm pretty sure that the Bonus Pack will not be included in the convenience pack. If IBM Works is already on your hard disk, the installation won't blow it away—but it won't install a fresh copy, either.

"Bottom line: don't look for anything new in the client that isn't already included in a fixpack..."

Bottom line: don't look for anything new in the client that isn't already included in a fixpack, driver update, or other already-existing form. Whenever you find yourself thinking, "Wouldn't it be cool if they added...?" repeat to yourself, "It's just a refresh. It's just a refresh" until the feeling goes away.

Based on—what?

What difference would a different code base make? I'm not technically competent to know, but according to one OS/2 programmer, OS/2 Warp Server for eBusiness has several enhancements in its architectural functionality. There's a new Kernel Execution Environment, increased process memory support, and new APIs (like DosSetFilePtrL, which can support files sizes of up to 8.5 billion MB—that's 8 *peta*bytes of storage). I've also been told that the server software can handle more threads simultaneously; however, I'm not in a position to judge.

For JFS, LVM, and SMP to work, the operating system required other major architectural modifications. I'm told that modifications outside the Ring 3 user space make it possible for IBM and third party developers to implement high end applications which were previously more difficult, or next to impossible to write. (Not that I've seen any, mind you.)

JFS goes free

One item that is public is that IBM is releasing the Journaling File System (JFS), used in AIX and OS/2 Warp Server for e-Business (WSeB), to the open source community. Although JFS support probably won't be included in the updated OS/2 client, that may not matter very much. According to an IBM Web site (`http://oss.software.ibm.com/developerworks/opensource/jfs/index.html`), "IBM is contributing this technology to the Linux open source community with the hope that some or all of it will be useful in bringing the best of journaling capabilities to the Linux operating system. Work is currently underway to complete the port of this technology to Linux."

However, I'm not completely sure if JFS, as open source, will be helpful to OS/2 users. According to a few messages posted on usenet, the open source JFS code leaves out a few files, or at least there are some files the OS/2 compilers can't find. I'm not sure whether those issues were resolved, and I don't know the programmers posting the messages well enough to judge, though I like to think that the problems will be fixed.

Why is IBM leaving JFS out of the OS/2 client? IBM wants to continue to sell the (more expensive and thus more profitable) OS/2 Warp Server for eBusiness, and so they need to establish some product differentiation.

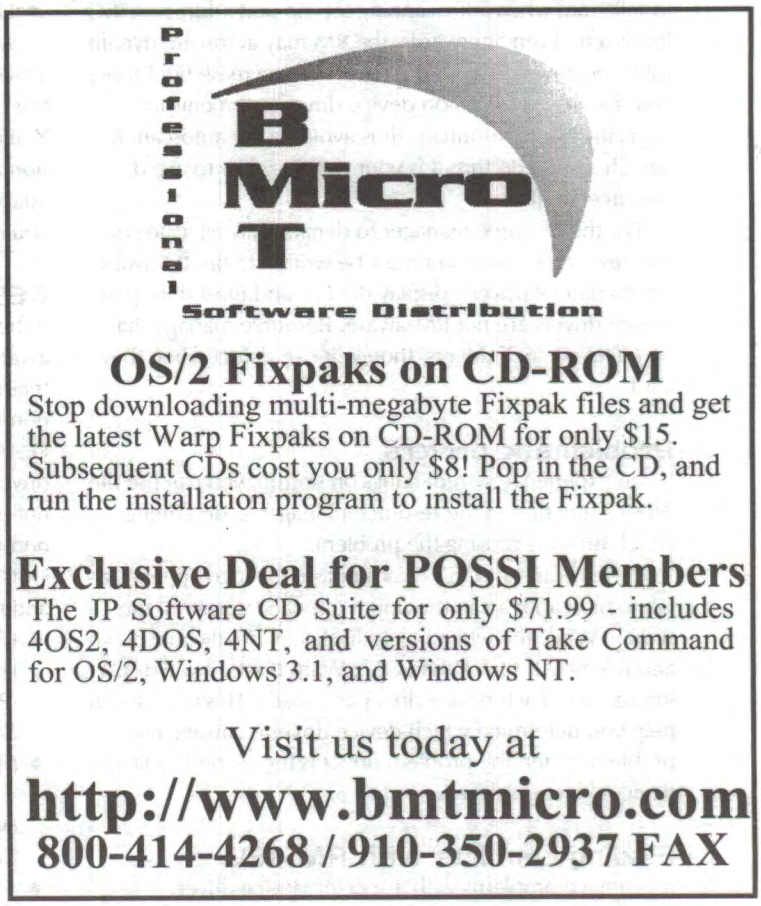
Also, IBM sees JFS as a feature appropriate to servers, not clients. They think that the Linux community will use it primarily on servers. I don't completely follow this logic. Sure, today Linux is currently used primarily as a server platform, but it's almost inevitable that it will become a client—at least on the desktops of "industrial strength" users. That was true with Windows NT early on—you'd never consider using it on a desktop. Yet "serious" Windows users run Windows NT Workstation, nowadays, rather than Windows 9x, mostly for stability reasons. With Linux, the transition will be even faster—and they'll have JFS.

But at heart: what's the difference between a workstation and a server anymore? I can run a Web server on an old copy of Warp 3 client... and quite a few people do. (There's an os2-isp email list, full of people doing just that.) OS/2 Warp Server for eBusiness provides a few advantages to an Internet-based server but you could live without them.

The server version of OS/2 means more in a file/print role, with better user security and suchlike—but JFS is no more "appropriate" there than it is for the Intranet/Internet server. If anything, JFS matters more for the "coming back up quickly" issues on a Web site that has to run 24x7 than it does on a company's own file server.

Don't get me wrong

But I'm not complaining, not really. In whatever state it arrives, a new refresh of the OS/2 client is a good thing. Not only will it make system installations easy, again, but it will also demonstrate IBM's real commitment to OS/2.



At the end of your resources

by David Both

This article continues my series on troubleshooting OS/2 problems. This time, I'll show you how to find resource conflicts and device driver problems.

The resource manager

The resource manager is a kernel-level device driver (RESOURCE.SYS) whose primary purpose is to resolve resource contentions among device drivers. System resources include such items as IRQs, DMA channels, and I/O port addresses.

When device drivers request access to a system resource, the resource manager (RM) determines if the resource is already in use, and relocates the driver in memory as necessary. If the driver is not RM-aware—it's hard-coded to use a specific set of resources—and the resources are already assigned, the driver will not load. It may not generate an error message.

OS/2 uses the resource manager extensively during installation, when autoscanning sets up port addresses, IRQ levels, etc. Even afterwards, the RM may autoscan, dynamically locating drivers as necessary. To decrease boot time, you may use switches on device driver statements to explicitly assign resources, thus avoiding the autoscan. If you choose to do this, it is your responsibility to avoid resource conflicts.

For the resource manager to dynamically allocate system resources, the driver must be written to be RM-aware. Microchannel drivers, display drivers, and most third party device drivers are not RM-aware. Resource manager has no effect on such drivers, though it can detect when they load.

Problematic drivers

If you experience system hangs on startup, you can use the Alt+F2 function of the resource manager to determine which driver is causing the problem.

When you start OS/2 Warp before the logo appears, a white blob appears in the upper left hand corner of the screen. While the white box is displayed, briefly hold down and release Alt+F2. While OS/2 Warp boots, it will display the name of each device driver as it loads. This feature can help you determine which device driver is causing the problem. Often the problem driver is the second-to-last device driver displayed.

Finding conflicts with RMVIEW

If you have problems with a specific device driver, RMVIEW can help you figure out what's causing the conflict. RMVIEW is a command line utility, and its syntax is as follows:

```
RMVIEW [switch]
```

Where the switches are:

- P Display Physical view (default) shows all resources claimed by physical components.
- P1 Physical view with planar chipset
- D Display Device Driver
- D1 Driver view with planar chipset
- L Display Logical view of system resources
- R Display in raw data format. Use with P, L, and D switches
- RQ Display claimed Interrupt levels (IRQ)
- IO Display claimed IO ports above 100 Hex
- IOA Display all claimed IO ports
- DMA Display claimed DMA channels
- MEM Display claimed Memory regions
- SO Sort IO, IOA, IRQ, DMA, MEM by owner
- HW Display Hardware Tree, shows the system's hardware diagram

You can use /P and /D to verify that device drivers are using the correct resources for the device they are supporting. You can also use the /D switch, which gives you information about the device driver. If the actual settings on the adapter differ from what you see in the RMVIEW report, you must change the driver's parameters.

RESERVE.SYS

If the resource manager allocates resources for an RM-aware driver, and a non-RM aware driver later loads and tries to use the same resources, a conflict will result. The non-RM aware driver will not be able to load. You can use RESERVE.SYS to allocate resources for non-RM aware device drivers. Once allocated by RESERVE.SYS, the resources will not be used by RM-aware drivers, leaving them free for non-RM aware drivers. The syntax for RESERVE.SYS is

```
BASEDEV=RESERVE.SYS [argument list]
```

and the following arguments are available:

- IO:a,n or /P:a,n Reserve I/O ports. a = base address in HEX. b = number of ports in DECIMAL. For example: /P:200,4 /DW:10 will reserve I/O port 200h, length 4, decode width 10
- MEM:a,l Reserve memory. a = base address in HEX. l = number of bytes in DECIMAL. For example, /MEM:CC00,16384 will reserve memory starting at CC00h, length 16Kb
- /DMA:c Reserve DMA channel. c = channel in DECIMAL. Example: /DMA:2 /EXC will reserve DMA channel

2 for EXClusive access
- /IRQ:n Reserve IRQ. n = IRQ level in DECIMAL. Example: /IRQ:5 /SHA reserves IRQ 5 for SHAred access
- /EXC sets the EXClusive attribute for the specified resource
- /MUL sets the MULtiplexed attribute for the specified resource
- /SHA sets the SHAred attribute for the specified resource
- /GY sets the Grant Yield attribute for the specified resource
- /DW:w sets the decode width. This is valid only for I/O ports. w = 10 or 16

Resource attributes are mutually exclusive, so you can specify only one attribute per resource. If no attributes are specified or decode width is set, RESERVE.SYS defaults to EXCLUSIVE and decode width of 16.

In reality, the ThinkPad CS4231 audio chip driver is RM aware, but let's suppose it wasn't. To specify this chip's resources, we could say in RESERVE.SYS:

```
BASEDEV=RESERVE.SYS /IRQ:10 /DMA:10 /MUL
/P:4E30,16
```

Doing so would prevent RM aware drivers from using these resources. While RESERVE.SYS will prevent RM aware drivers from using these resources, it will not prevent other non-RM aware drivers from using them. It is still your responsibility to resolve resource conflicts between non-RM aware drivers.

I will continue this discussion of troubleshooting tools next month. And you may want to note that I have a humongous chapter on troubleshooting in my online "DataBook for OS/2 Warp." You can check it out at `www.millennium-technology.com`.

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Bringing DeScribe up to date

by Mark Davis

Although the company is gone, many OS/2 users still use DeScribe Inc.'s DeScribe word processor. Included with DeScribe is a macro to create the current month's calendar—which, unfortunately, was broken by the year 2000.

Here's a new macro to make the calendar work with year 2000 and later.

```
! This macro prompts the user for a month and a year,
! calls up the Calendar Layout and fills in the headings
! with appropriate values. This modification should work
! for years 1950 through 2049.
VAR month
VAR day
VAR year
VAR noDays
VAR daySeq
VAR mo
VAR count

PROCEDURE DaysInMonth
! arguments are m and y, returns d
SET d TO 31
IF m=1 THEN SET mo TO "JANUARY" RETURN END IF
IF m=3 THEN SET mo TO "MARCH" RETURN END IF
IF m=5 THEN SET mo TO "MAY" RETURN END IF
IF m=7 THEN SET mo TO "JULY" RETURN END IF
IF m=8 THEN SET mo TO "AUGUST" RETURN END IF
IF m=10 THEN SET mo TO "OCTOBER" RETURN END IF
IF m=12 THEN SET mo TO "DECEMBER" RETURN END IF
SET d TO 30
IF m=4 THEN SET mo TO "APRIL" RETURN END IF
IF m=6 THEN SET mo TO "JUNE" RETURN END IF
IF m=9 THEN SET mo TO "SEPTEMBER" RETURN END IF
IF m=11 THEN SET mo TO "NOVEMBER" RETURN END IF
SET mo TO "FEBRUARY"
SET z TO year MOD 4
IF z = 0 THEN
   SET d to 29
ELSE
   SET d TO 28
END IF
END PROCEDURE

PROCEDURE CheckMon
! Call with: month=month
! year=year
! Exits with: noDays=no. of days in month
! monthName=text of month name
! daySeq=first day (0=Sun, 1=Mon, ..., 6=Sat)
SET count TO year * 365
SET q TO year-1
SET q TO q / 4
SET count TO count + q
SET m TO 1
SET y TO year
REPEAT
   EXIT WHEN m = month
   CALL DaysInMonth
   SET count TO count + d
   SET m TO m + 1
END REPEAT
IF year = 00 THEN
   SET x TO count+6
   SET z TO x MOD 7
   SET daySeq TO z
   SET m TO month
   CALL DaysInMonth
   SET noDays TO d
RETURN END IF
IF year >= 50 THEN
   SET x TO count+1
   SET z TO x MOD 7
   SET daySeq TO z
   SET m TO month
   CALL DaysInMonth
   SET noDays TO d
ELSE
   SET x TO count
   SET z TO x MOD 7
   SET daySeq TO z
   SET m TO month
   CALL DaysInMonth
   SET noDays TO d
END IF
END PROCEDURE

MACRO Calendar1
SET MacroDialogTitle to "Set up Calendar"
MSET "Month (1-12)" TOVALUE month
MSET "Year (94, for example)" TOVALUE year
MGET "To create a Calendar table in a new DeScribe document, type the desired month and year."
IF month < 1 THEN QUIT END IF
IF month > 12 THEN QUIT END IF
!year should be 0 through 99
IF year < 0 THEN QUIT END IF
IF year > 99 THEN QUIT END IF
CALL CheckMon
NewDocumentFile "CALENDAR.dwp"
SET SelectedFrame TO "Text"
CursorHome
PUT mo
PUT " "
KeyTab
IF year >= 50 THEN PUT 1900 + year END IF
IF year < 50 THEN PUT 2000 + year END IF
CursorEndLine
CursorEndLine
CursorEndLine
CursorEndLine
CursorEndLine
CursorEndLine
CursorEndLine
```

continued on page 9

The WarpTech report

by Craig Greenwood

Hear all the sawing and hammering in the background? That's our crew of loyal and hardworking volunteers building WarpTech, the technical conference for OS/2 users. And it's coming together nicely, if I do say so myself.

The framework of any conference is the program content, and Esther Schindler has already lined up a score of sessions. Many presenters are the authoritative experts in their respective fields, such as Scott Garfinkle, from IBM, speaking about problem determination tools in OS/2, and IBM's Randy George, discussing how to manage a server-based environment. And that's just naming a few. Esther is continuing to find relevant program content, so be sure to check out `www.warptech.org` for the latest list of conference sessions. If you have any ideas for sessions or presenters on topics other than those listed, or if there's a technical topic you'd like to share your expertise on, drop a note to `esther@bitranch.com`.

Marilyn Pizzo and Gil Day are in charge of the exhibitors. We expect a wide variety of exhibitors, from OS/2 specific software vendors, to companies providing Java, hardware, and operating-system agnostic products. Robert Gherig volunteered to make available a dual-processor Pentium Pro server for networking the exhibit hall. We're still trying to arrange for computer systems to be in each presentation room.

Promoting the conference

In the last few days, Daniel Goggia volunteered to handle all event promotion. You can expect to see regular updates from him. If you want to help publicize the conference, there is a simple way to do so: stop by the Web site and pick up a snazzy WarpTech banner to display on your own Web site. Also, go out of your way to mention the event in your online and other travels. Perhaps you could add WarpTech to your email signature?

Like every conference, WarpTech requires a lot of work that's often invisible—and quite a few people have stepped forward to quietly get it done. Bill Schindler wrote a Java front end to the registration database, which Mark Kerzner (who's in charge of registration) uses to remotely access the database and process applications.

Burke Swanson is working out the logistics for our audio-video systems. Burke was an AV technician for the Phoenician, another of Phoenix's classy resorts. His attention to detail and commitment to first rate quality will be noticed by presenters and attendees alike.

Want to share a room at the Wigwam? Joyce Clarke (`crs@island.net`) is acting as coordinator for anybody looking for roomies. Richard Klemmer will update the Web site with travel specials, but you can help: if you encounter a great price on airfare to Phoenix, drop him a line at `richard@webtrek.com`. If you want to help out in some other way—whether it's working at the registration table, designing exhibitor banners, or "just tell me what to do" — let the volunteer coordinator, Sam MacDonald (`samemac@attglobal.net`), know that you're willing to pitch in.

Need some suggestions? Here are a few services that we don't have manpower for yet. We'd like someone to take on the responsibility for producing printed or CD-ROM conference proceedings for attendees to take home. We would also like to find someone, or some group or organization, to host daytime refreshments, to offer a hospitality suite, or maybe even to host an evening meal off site on Friday or Saturday. If you can help out with one of these items, or know someone who can, let me know at `captain@warptech.org`.

And please—don't forget to register! Not only does early registration save you money, but it helps us budget our time and expenses.

Together, with your help and the help of many others in our community, we expect to put together a quality technical conference to benefit OS/2 users far and wide. And thanks, in advance, for your help and support.

DeScribe—continued from page 8

```
TableCellRight
REPEAT
   EXIT WHEN daySeq = 0
   TableCellRight
   SET daySeq TO daySeq-1
END REPEAT
SET d TO 1
REPEAT
   PUT d
   EXIT WHEN d = noDays
   SET d TO d + 1
   TableCellRight
END REPEAT
TableModifyStart
SET TableTabCreateRows TO FALSE
TableProcessChanges
CursorHome
SET SelectedFrame TO "DeNote"
END MACRO
```

WarpTech registration

Sign up now to get the "early bird" discount rates

.event

The Phoenix OS/2 Society, Inc is creating a special three-day technical event for OS/2 Warp users, developers, and vendors. The event will be held at the world-renowned Wigwam Resort in Litchfield Park, Arizona, USA (near Phoenix) over Memorial Day weekend.

Technical sessions are planned to cover the gamut from home to corporate users and from novices to software developers. Among the sessions you can expect:

- Software development
- The Internet and e-business with OS/2
- The guts of OS/2
- Connectivity and cross-platform issues
- The OS/2 marketplace
- Tips and tricks

And many sessions are already scheduled!

If you're an OS/2 user, developer, or vendor, this is an event you do not want to miss! To sign up, cut out or copy the form below, fill it in, and mail it to the Phoenix OS/2 Society with your check or credit card information.

The Wigwam Resort is offering a discount room rate of $99/night for WarpTech attendees. To reserve your room at this rate, call 800-327-0396 and mention WarpTech.

WARP Tech

WarpTech Registration

Memorial Day May 26–28, 2000

Wigwam Resort ▮ Phoenix, AZ

Today's date

Please use one form per registrant

Name [Last, First I. (Nickname)]

Address 1

Address 2

City | State/province

Zip code/postal code | Country

Phone | Email

Rates for full three days (includes lunches)

Until 31 December 1999:	❑ $110.00 POSSI member	❑ $120.00 nonmember
1 January to 30 April 2000:	❑ $120.00 POSSI member	❑ $130.00 nonmember
1 May 2000 to event:	❑ $130.00 POSSI member	❑ $140.00 nonmember

Daily rates (includes lunches) ❑ Friday ❑ Saturday ❑ Sunday

Until 31 December 1999:	❑ $59.00 one day	❑ $79.00 two days
1 January to 30 April 2000:	❑ $69.00 one day	❑ $89.00 two days
1 May 2000 to event:	❑ $79.00 one day	❑ $99.00 two days

Lunch only ($25.00) ❑ Friday ❑ Saturday ❑ Sunday

Member #

❑ I am a member of the Phoenix OS/2 Society
❑ I wish to join the Phoenix OS/2 Society now and take advantage of the member discount (enclose a completed membership application)
❑ I need vegetarian meals
❑ Do not send me WarpTech announcements via email
❑ I am interested in information about evening activities and excursions around Phoenix
❑ Please contact me about exhibiting at WarpTech
❑ Please contact me about volunteering to help at WarpTech
❑ Please contact me about advertising

Check enclosed for $_____ OR Charge my ❑VISA ❑Mastercard ❑Discover ❑American Express

Make payable to Phoenix OS/2 Society, Inc

Expiration date ____/____

Card # _____

Signature: _____

Refund Policy

Refund shall be the paid registration amount less $10 until March 1, 2000. Thereafter, an additional $25 per registered day shall be non-refundable.

Phoenix OS/2 Society, Inc ■ 5515 N 7th St, PMB 5-133 ■ Phoenix, AZ 85014-2531 ■ USA

Get a load of this

by Esther Schindler

In all this time, the Phoenix OS/2 Society has never looked at OS/2 Warp Server for eBusiness technically. Sure, we've had IBM executives tell us about the product; months before the software's release, IBM's Steven King came out to talk about the technology behind it. And we've given the product some business analysis in these pages. But the Society has never had a hands-on demo.

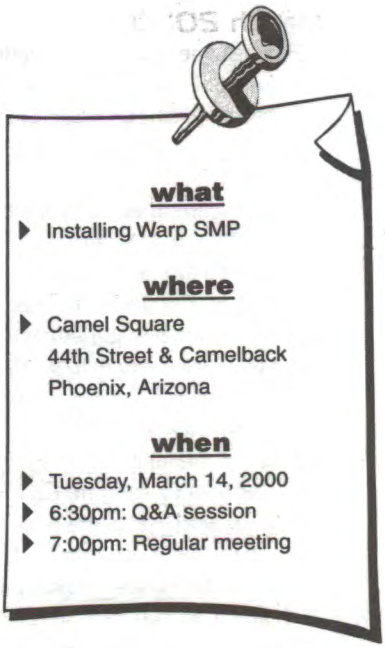
It's time to change that.

On Tuesday, March 14, our own Robert Gehrig will install OS/2 Warp Server for eBusiness in front of us: live and in person. He'll load the software on the server we'll probably use for WarpTech, a dual-Pentium box with 256MB of RAM.

This will give us all the opportunity to discuss the software in detail. For many of us, it may be our first experience with SMP (symmetrical multiprocessing). We'll probably install every feature and explore what's possible—from the Journaled File System (JFS) to the Logical Volume Manager (LVM), which lets you create partitions that span physical volumes.

The meeting is at the usual time and place: 7:00pm on Tuesday night, March 14, at the Camel Square. Room G250 is upstairs.

And, of course, you're always welcome to come along for the after meeting meeting. Last month, Brad Montroy pointed out that Garcia's—only two blocks away—is open until 10:00pm, and the restaurant gave us a room to ourselves. We may have found a new hangout.



ArsDigita Foundation

Encourages top teenage Web site developers

press release

The next generation of Web site developers are finding inspiration, encouragement—plus some financing—from the folks at the ArsDigita Foundation (`www.arsdigita.org`), which sponsors an annual competition for teenage programmers. The only hitch is the sites have to be useful to a community of people, have no advertisements, and must distribute their source code on their sites so that other programmers can build on their work.

The winner receives a $10,000 cash award, use of a Web server with a professionally maintained relational database management system, and an all-expenses-paid trip to the Massachusetts Institute of Technology.

Applications are being accepted now. The award will be presented in June 2000. Applicants must be no more than 18 years old as of March 1, 1999, and the web service entry must be non-commercial and contain no banner ads or subscription fees, it must be comprehensible to someone who understands only English, it must be tasteful (the sponsors provide some pretty basic, non-restrictive guidelines here), and it must be used by others.

To see some of last year's entries and get more information to the ArsDigita Prize Web site, visit `www.arsdigita.org/prize`.

Coming events

A list of events scheduled by the Phoenix OS/2 Society and other OS/2 user groups.

March 2000

March

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

5 Magazine submission deadline for April issue. Articles should be sent to `editor@possi.org`. For other arrangements, call 480-585-5852.

7 net.sig (Internet SIG). Meeting is 6:00pm to 8:00pm. Coordinator Sam MacDonald. Location: KDC, 2999 N 44th St, 4th floor, Phoenix.

14 General meeting; putting together an SMP server. Meeting is 7:00pm to 9:00pm. Q&A session is 6:30pm to 7:00pm. Location: Camel Square, G250, 44th St & Camelback, Phoenix.

25 Board meeting and magazine prep. Meeting is 10:00am to 1:00pm. Eat a brunch, learn about the inner workings of the Society, and help get extended attributes ready to mail. Location: Bill and Esther Schindler's house in north Scottsdale, 9355 E Mark Lane. Call 480-585-5852 or send email to `esther@bitranch.com` for directions.

April 2000

April

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

4 net.sig (Internet SIG). Meeting is 6:00pm to 8:00pm. Coordinator Sam MacDonald. Location: KDC, 2999 N 44th St, 4th floor, Phoenix.

5 Magazine submission deadline for May issue. Articles should be sent to `editor@possi.org`. For other arrangements, call 480-585-5852.

11 General meeting; Dick Krueger on hard drive configuration. Meeting is 7:00pm to 9:00pm. Q&A session is 6:30pm to 7:00pm. Location: Camel Square, G250, 44th St & Camelback, Phoenix.

29 Board meeting and magazine prep.

May 2000

May

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

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9 General meeting. Meeting is 7:00pm to 9:00pm. Q&A session is 6:30pm to 7:00pm. Location: Camel Square, G250, 44th St & Camelback, Phoenix.

26 WarpTech begins. The WarpTech conference runs May 26–28, 2000 (Memorial Day weekend). For more information, see `www.warptech.org` and the application form on page 10.

27 Board meeting and magazine prep (at WarpTech).

June 2000

June

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

5 Magazine submission deadline for May issue. Articles should be sent to `editor@possi.org`. For other arrangements, call 480-585-5852.

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13 General meeting. Meeting is 7:00pm to 9:00pm. Q&A session is 6:30pm to 7:00pm. Location: Camel Square, G250, 44th St & Camelback, Phoenix.

24 Board meeting and magazine prep.

July 2000

July

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

4 net.sig (Internet SIG). Meeting is 6:00pm to 8:00pm. Coordinator Sam MacDonald. Location: KDC, 2999 N 44th St, 4th floor, Phoenix.

5 Magazine submission deadline for May issue. Articles should be sent to `editor@possi.org`. For other arrangements, call 480-585-5852.

11 General meeting. Meeting is 7:00pm to 9:00pm. Q&A session is 6:30pm to 7:00pm. Location: Camel Square, G250, 44th St & Camelback, Phoenix.

29 Board meeting and magazine prep.

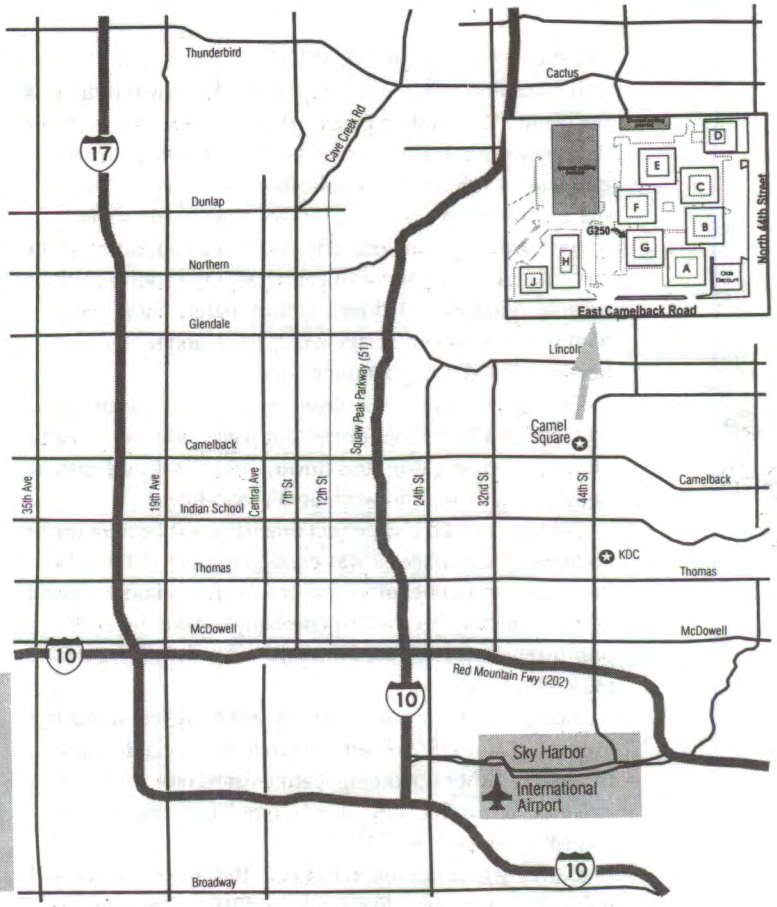
Meeting locations

Directions to meeting locations.

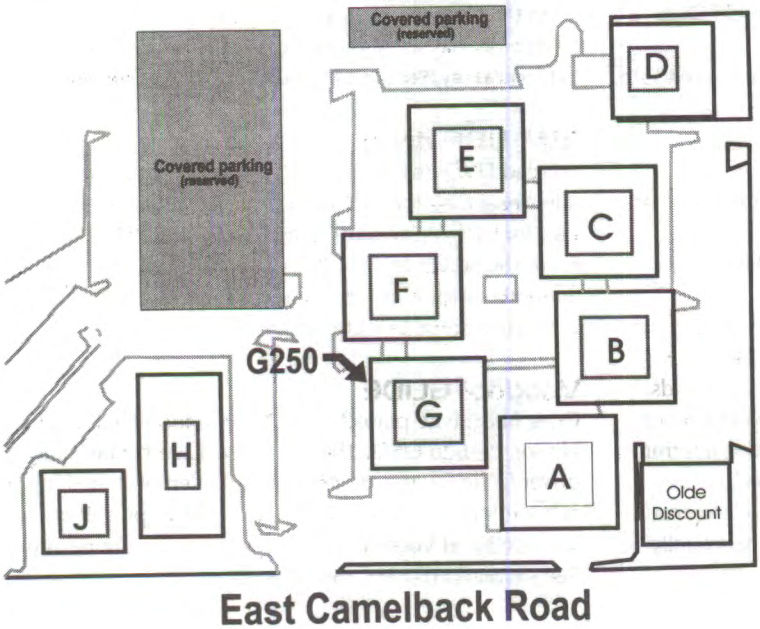
General meetings are held at the Camel Square office complex, Room G250, 44th Street and Camelback (northwest corner), Phoenix.

From the Red Mountain Freeway (202), exit at 44th Street and go north $3^1/_2$ miles. From the Squaw Peak (51), exit at Colter (southbound) or Highland (northbound); follow signs to Camelback Rd and go east $3^1/_2$ miles.

The "How OS/2 Works General Interest Group" and the Internet SIG (net.sig) meet at Knowledge Development Center, 2999 N 44th St, Suite 400. That's just north of Thomas, in the building with the green dome. Plenty of free parking is available in the garage behind the building.



If the mailing label on the back cover says "sample" then this may be the only copy of extended attributes that you will ever receive. If you want to keep getting the magazine (and receive all the other benefits of membership), you must join! A 12 month membership in the USA is only $30. (See the form for membership pricing in other areas.) Tear out the applica-



A map of Camel Square, the new location for the Society's monthly general meeting. We will be meeting in room G250. You may park anywhere except in the reserved (covered) parking spaces.

In the driver seat

New support for your OS/2 hardware

by David Wei, davidwei@cybermail.net

I've mentioned the generic Win-OS2 sound driver before in this column, and some people wonder why this driver is necessary. Well, with a generic driver, programmers do not have to write two drivers when they code OS/2 sound drivers, one for OS/2 native applications, and one for Win-OS/2 applications. Because it takes extra work, some sound cards don't include any Win-OS/2 support at all. In some cases, OS/2 users can get by with the sound card's original Windows 3.1 driver. Unfortunately, more often than not, that driver usually won't work under OS/2 because of VxD programming issues.

The generic Win-OS2 sound driver solves the problem by creating a Win-OS/2 driver that piggybacks onto OS/2's native sound API. With this driver, any sound card with a native OS/2 driver can work under Win-OS/2!

IBM worked on this project originally. While their driver code was incomplete, it was enough to demonstrate the basic idea and to be improved on. As far as I know, Crystal Semiconductor was the first company to take the code, improve it, and integrate it into their standard OS/2 driver package.

Now, John Gow has come forward to deliver a much improved Win-OS/2 driver, one that isn't locked to any hardware. Other upcoming features are quite attractive indeed, such as SoundBlaster 16 emulation under DOS and MIDI support via RTMIDI.

Even if you don't use Win-OS/2, this driver's future still holds some promises, like the SoundBlaster 16 emulation under DOS. It should be fun to play all those old DOS games that we used to love so much.

For more information, see `http://home.wxs.nl/~rwklein/index.htm` or `www.mensys.nl/rwklein`.

SciTech Software's SDD/2

SciTech has another public beta release of their One-For-All Video Card Driver, beta 17/18.

There's a whole list of improvements in this version, some of the most notable of which are:

- Added support for the Tseng ET6100 chipset, and preliminary support for S3 Savage2000 chipsets.
- Fixed reference clock detection for Rage128 boards. Some boards would have a refresh rate up to 5Hz off the correct values due to this bug. Plus some intermittent lockup problems on Rage128 are fixed.
- Fixed multiple screen fletching and corruption problems on ATI Rage IIC, Rage Pro, and Mach64 family controllers, and similar problems on some S3 Savage3D/4, 3dfx Banshee and Voodoo3 based video cards.
- Lots of fixes and updates for Cirrus Logic 543x/4x chipsets, earlier Matrox boards and Intel i740 chipsets. Other problems like line clipping bugs that shows up in Java applets are also fixed as well.

You can download SciTech Display Doctor Beta 17 from `ftp://ftp.scitechsoft.com/sdd/beta/os2/sdd-os2-7.0.0-b17.exe`. The SciTech Display Doctor History Information can be checked out at `www.scitechsoft.com/sdd2_changes.txt`.

Epson Drivers

If you crave the near-photo-lab quality printout of Epson's Photo 750 and 1200 series printers, or you just want support for Epson's Stylus Color 640, 740, or 900 models, the company's new driver supports all those printers under OS/2, including what the company advertises as "superior color management." Head over to `ftp://ftp.software.ibm.com/ps/products/os2/os2ddpak/ep2en.zip`.

CDRecord/2 v1.8a40b

The free CDRecord/2 CD-recording software supports quite a number of SCSI CD-R and CD-RW drives right out of the box. There are reports that it can be used with ATAPI CD-R and CD-RW if you have the right driver/router software installed.

In this release, cdcopy package is updated, and Cdda2wav has some bugs fixed. See `www.geocities.com/SiliconValley/Sector/5785/cdrecord/cdrecordmain.htm`.

IBM UDF driver

To read DVD disks in DVD-ROM drives, you need UDF (Universal Disk Format) support. IBM has released the support for such file systems, but it's only available to subscribers to the Server level of Software Choice. If you have such a membership, visit `http://service.boulder.ibm.com/asd-bin/doc/en_us/catalog.htm`.

Voodoo! GLiDE

Craig Ballantyne ported the 3Dfx Voodoo1 GLIDE2 driver version 2.46 to OS/2. The whole package contains the driver (glide2x), test programs, and a demonstration application (donut). This is a 100% OS/2 native port. Ports for Voodoo2 and Voodoo3's GLIDE driver are coming as well. See `www.guisoft-corp.com/3dfx`.

Net.Commerce: online and in color

by Joel Frey

Last month

It's almost impossible to escape the recent buzz about business on the Internet, especially during the holiday shopping season. By now, you have probably heard most of the buzzwords and slogans: "Instead of brick and mortar, click and order," e-commerce, e-business, etc. It should be obvious that a business that takes orders over the Internet is not substantially different than a mail-order operation, except for the shock that last-minute shoppers express when they discover that their orders cannot be filled as quickly as they are taken—if at all.

History repeats itself. Sears Roebuck initially created more demand than they could possibly meet (and, it's rumored, burned the orders they couldn't handle). Many new online businesses and converts from traditional methods are experiencing similar, serious growing pains. Businesses already established in their industries are experiencing the same troubles, so it's probably not so much a lack of business savvy as a lack of good tools.

It's one thing to have a Web site and a line of products, and another to offer a site that can deal effectively with high volumes, peak times, order cancellations and changes, inventory shortages, or plain old communication problems. And, as any programmer knows, building something that works in the lab is a world away from something that works in the real world. Creating fault tolerance and handling the unexpected with a reasonable amount of grace takes time, effort, and great deal of patience. And don't forget that the software has to be easy to use and administer.

At the January meeting, Gil Day, long-time Society member and former IBM employee, demonstrated Net.Commerce, IBM's tool for building e-commerce sites.

What IBM offers

Before I began writing this article, I did a search on Net.Commerce on the IBM Web site. I'll admit it. I can't figure out the product labelling. The first search hit was on the WebSphere Commerce Suite; this DB2-based offering consists of the WebSphere Studio Software for creating Web sites, the WebSphere Application Server, a search engine called the DB2 Text Extender, the Apache Web server, the WebSphere Payment Manager, and an LDAP directory named the SecureWay Directory. It comes in both Starter and Pro flavors and currently runs on AIX, Solaris, and Windows NT and will eventually be available on AS/400 and OS/390. And one component was the Net.Commerce Hosting Server, for hosting multiple commercial sites.

Eventually, I found descriptions that more closely approximated what Gil showed us: software for building and maintaining online stores, including handling order entry, payment, and customer tracking functions such as shopping carts. Although this particular hit was for the OS/390, I eventually discovered the versions for 32-bit Windows, AIX, Solaris, and AS/400.

Naturally, with the product available on all of these platforms, IBM's big selling point is scalability. IBM can rightly claim that they recognized this market early. They began moving in this direction years ago, as part of their strategy.

So where's the OS/2?

Gil demonstrated Net.Commerce on Windows NT. Apparently, in the version he showed, only two of the three pieces were available on OS/2, although he was sure that IBM had advertised it as available for OS/2 at one time. Since the next version is supposed to be in Java, it should all run on OS/2 again.

IBM's approach is to offer a complete set of functions that one would need for a commerce site, including one I didn't run across at the IBM site called "Start Now," that includes software and hardware and some support services in a starter configuration, for between $30K and $40k.

So, what kind of functionality do you get in this (these) products? Here's a few comments from Gil:

Electronic catalogs: "For a lot of the catalogs on the Internet, you have to turn pages. They don't have real good search criteria. The sales force is absent from the event; it's you and the catalog. Perhaps the detail is not as rich and deep as the in-store counterparts because they just didn't feel like typing it all in, or they couldn't hire enough people to type in all of the information."

Product Advisor: "You can explore a product, or products with certain features. You have the capability to go to alternate selections... you can exploit the knowledge of product experts. It sort of puts the sales person on the desktop."

Sales assistants: "You can do a lot of things to help a shopper choose products. Product assistants help you show how the product works."

Product comparisons: "You can actually do side-by-side comparisons. You can combine all of the features" so you can see the products that have the features you want."

Catalog architect: "Helps you to put the catalog together. It includes some tools for importing data to your catalog."

Auctions: "Auctions are pretty popular today and they felt they had to have an auction piece."

HotMedia: Graphics functions to help you look at the product and do 3-D rotations. For example,"Open up the car and look inside."

Secure Electronic Transactions (SET) for handling credit card payments without giving credit card numbers to the vendor.

Gil also showed a store creation wizard and functions for managing customers, customer groups, discounts, and so on.

As I mentioned earlier, Gil did the presentation on his laptop with Windows NT, even though he plans to put OS/2 back on it "now that I don't work for someone that forces NT on everybody." One of the amusing things was listening to the great multimedia implementation that periodically caused the voiceover to stutter, producing an effect not unlike the character of a few years ago with the television head named Max Headroom.

In any event, if you want more information on Net.Commerce, or whatever IBM is calling it by the time you read this, go to `www.ibm.com` and search on some of the names you see above. They probably won't change them all by the time you get there.

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Virtual Pascal

Taking another Pascal development environment for a test drive

by Richard Knapp

Virtual Pascal 2.0 is an Object Pascal compiler that can create OS/2 and Win32 applications. I have been using Pascal since the mid-1980's and I had some code I wanted to port to OS/2. Since VP doesn't require a lot of resources and my computer isn't particularly powerful, I thought I would give this development environment a shot.

Easy to get started

Installation is pretty simple. You do have some options, which are most relevant if you are "upgrading" from other Pascal tools. If you have Borland Pascal with Object's Object Window Library (OWL) or TurboVision, you can install patches for the OWL and TV libraries under VP; I could only test the TurboVision upgrade. VP also has support for Visual Component Library (VCL is Delphi code).

After installing VP, you have a folder containing a few objects: the documentation (in Adobe's Acrobat format) and three different integrated development environments (IDEs). Two are text-based IDEs just like TurboPascal, and one is a Presentation Manager IDE (See Figure 1, above right). When it's first loaded, PM IDE looks like the text version but the fonts are better. This is the environment I use most.

Now, what to do with it?

A long time ago, I created a program, using Borland's Turbo Pascal 4, that stored data in a binary file format. I have not done anything major to that program in many years. Unfortunately, other programs needed to use the same data but could not read the binary format. A project is born: I decided to write a conversion program.

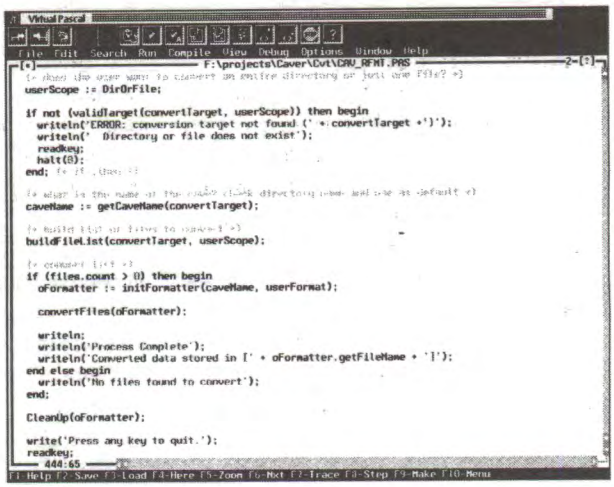
First, I loaded the program under Turbo Pascal 7, and created some objects to read the old format and write it into other formats. It wasn't pretty, but it worked. I decided to use an old copy of SpeedPascal/2 1.5 to make it more powerful. I added more objects to hide the details, and make the program more extensible and more robust. This effort took a little longer than I planned, but at the end I had a much better program.

Virtual Pascal
$159.00

(available through BMT Micro)

www.vpascal.com

About this time, I bought Virtual Pascal and agreed to write this review. What could be an easier project than to port my Turbo Pascal code to VP? I wish it would have been as easy that sounds. I had trouble from the start. As you can see in Code Listing 1, what Turbo Pascal and Speed Pascal liked, Virtual Pascal did not.

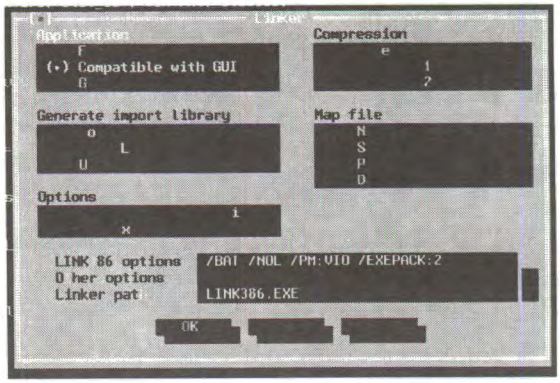


After spending too much time with elevated blood pressure levels, I found that VP did support the old object declarations. However, my code was a combination of old Object and newer Class coding. (Me, make a coding error?) All variables of a class type were actually references. I didn't need all the pointers I had created for the Turbo Pascal program. (See Example 2, pg 19.)

I made adjustments to the class structure and removed all the pointer code. I also removed an array I'd used to store filenames, in favor of a TStringList object.

VP also allows you to use most, if not all, Delphi syntax. The "property" keyword is recognized, which makes doing "getters" and "setters" a little easier... and fun. Instead of having to use "getField" and "setField()", you can create a property called "field" that uses the get and set functions, as you see in Example 3.

Now, I have a fully functional conversion program. Granted, I did not go through all the motions of creating a PM application, but this project gave me a pretty good feel for how VP works.

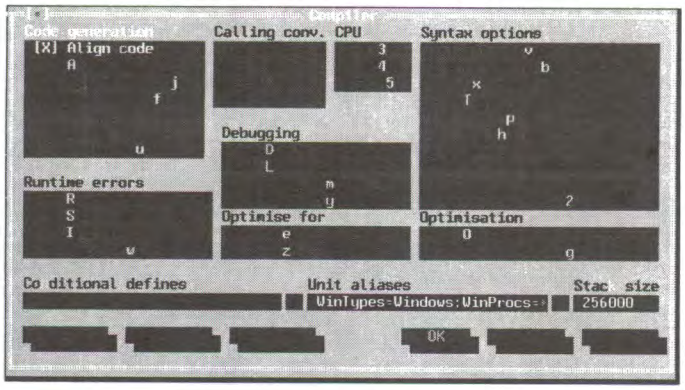


Getting my feet wet

To control compiler performance, three predefined settings make things easy. They are "Fastest", "Smallest", and "Debug." For my program, those settings yielded executables of 32741, 32609, and 35341 bytes. A similar program under SP/2 1.5 (using arrays, not collections) was 79645 bytes—almost twice as large.

The compiler is also very fast. When you change compiler options, you recompile the Run-Time Library (RTL) and all project source code. On the most recent build (rebuild all related modules and link), VP did 43448 lines of code in 6.9 seconds. A make for the main source file completed compiling and linking in 1.9 seconds.

More options on the resulting file can be found on the linker page. Here, you control whether the exe is full screen (all the time), windowable, or a PM graphical app. You can also specify if you are creating an EXE, a DLL, or a DEF.



I'm impressed with the power of Virtual Pascal's debugger. If you run a program under the IDE and the program crashes, a stack dump is put on the screen. Unfortunately, I understand very little assembler (okay, none) so it doesn't help me that much. However, if you compile the program using the "Debug" option, it will show more information about where the program broke. Like TP, you can also set plain breakpoints, conditional breakpoints (if number = 0, then break) and watches. You can also "animate" the debug session; you set the pause, then run—and the code runs in nice, distinct steps. This saves a lot of time from manually stepping through code.

There is also another handy debugging feature: Run-Time Location Information. When you enable this (under Options -> Linker -> Generate location Info), if your program fails, it will output the file name and line number where the run-time error occurred.

I mentioned it before in passing, but VP uses an RTL and it encapsulates all system calls. Why? By using this method, I can change the target OS by telling the RTL and only the RTL to use different code. If I want a Win32 executable, the only change I have to make (except API calls) is to change the target from OS/2 to Win32 (under Compile -> Target), I rebuild the project and I have a Win32 executable. No other changes are required. When the promised Linux version is available, the same porting ease will be available there.

Here's some other features I liked. VP uses standard OMF-compatible object files, which allows VP to generate and use files with other compilers and linkers. You can also expand the debugger since you get the source for the whole RTL, and it can be used for debugging non-VP apps, for example. The source code for the platform-dependent part of the debugger (VpDbgDll.Pas and VpDbgApi.Pas) is included, so it is possible to modify/extend the code, recompile it as a DLL, and use in place of the supplied DLL. VP started out as a debugger, not as a compiler—and this shows in the feature set of the debugger.

So what don't I like?

The User Guide and Language Reference are in Adobe's Portable Document Format, which requires their Acrobat application in order to be read. (The User Guide is also available in text format). Unfortunately, Acrobat for OS/2 can be painfully slow, and at times it's like watching moist mud flow downstream. Running a search through the documentation eats up all available processor time on my system, and moving from page to page at anything more than a crawl is impossible. Since the language manual for Object Pascal is only available in this format, I needed it to be sitting in the background most of the time I was coding. It would be better to have some of this info in the main help.

The on-line help is good and has examples throughout but does not cover the Object Pascal language (only in Acrobat), the Classes (Delphi-compatible low level class definitions), TypInfo (Delphi-compatible run-time type information), or PMObj (Presentation Manager program base) units. I found the lack of information on Classes to be the most frustrating part. I had to keep a copy of Classes.pas open so I could see what classes were available, what they did (kind of), and what functionality was available. Since I didn't do any GUI work, I did not use the PMObj unit. When I do, the lack of documentation there will probably be a little frustrating as well.

I found out later that I could use some of the old Turbo Pascal Help which I liked. VP comes with a utility, called Tph2Vph, which converts Turbo and Borland Pascal help files to its own format. This was very handy to know; I just wish I had known it sooner. That will teach me to read the manual!

I also had a problem with the PM IDE. I encountered some problems when switching between sessions, with the screen would not repaint correctly. This is a known problem with all but the full-screen IDE in OS/2, especially when debugging.

Despite my criticisms, in my opinion, VP is worth its price. It has a very good compiler, outstanding cross platform development support, and it's easy to use.

Virtual Pascal is available from BMT Micro for $159 or $119 for students. The Virtual Pascal web site is www.vpascal.com.

Richard Knapp is a freelance (i.e. out of work) developer. He has used Pascal since the Z-80 days and can be reached at Warped_User@Yahoo.com.

Example 1—Bad

```
program PITA;
uses Objects;
type
   PMyObject = ^TMyObject;
   TMyObject = class(TObject)
   private
   protected
   public
   constructor Init;
   destructor Done; override;
   procedure doSomething;
   end;
constructor TMyObject.Init;
begin
   inherited Init;
end;
destructor TMyObject.Done;
begin
   inherited Done;
end;
procedure TMyObject.doSomething;
begin
   {yada... yada... yada}
end;
var
   pObj: PMyObject;
begin
   pObject := new(PMyObject, Init);
   pObject^.doSomething;
   dispose(pObject, Done);
end.
```

Example 2—Better

```
program NotPITA;
type
   TMyObject = class(TObject);
   private
   protected
   public
   constructor Create;
   destructor Destroy;
   procedure doSomething;
   end;
constructor TMyObject.Create;
begin
   inherited Create;
end;
destructor TMyObject.Destroy;
begin
   inherited Destroy;
end;
var
   oObj: TMyObject;
begin
   oObject := TMyObject.Create;
   oObject.doSomething;
   oObject.Free; (* note: Destroy will
work, too, however, using Free is safer *)
end.
```

Example 3—Properties

```
type
   TMyObject
   private
   FValue: longint;
   procedure setValue(newValue: longint);
   function getValue : longint;
   FString: string;
   procedure setString(newValue: string);
   FROString: string; // Read-Only string
   public
   property Value : longint read getValue
write setValue;
            // or use the field directly
   property String : string read FString
write setString;
   property ROString : string read
FROString;
end;
```

THE
OS/2 SUPERSITE

http://www.os2ss.com

- Over 2 gigabytes of OS/2 shareware and freeware
- Mailing lists such as OS2USER and WarpCast
- Home of several popular OS/2 web sites such as OS/2 e-Zine!, EDM/2, OS/2 Connect, Loren Bandiera' s OS/2 News and Rumors Page, and Timur Tabi' s New OS/2 User page.
- The OS/2 Discussion Forum
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Club members get special deals on commercial software and $2.50 off **every** shareware application they register through BMT Micro. Members also get FTP access to the Supersite archive and space for their personal web page. See http://www.os2ss.com/club/ for details.

New and improved

compiled by Esther Schindler

It must be time for spring cleaning, or at least time for the software fumigation services to visit. Several popular utility and application developers released new versions that stomp out pesky bugs, including one or two Y2K issues.

But this month's batch includes a few neat new programs as well, including a slide show program, a network trace utility, and a password "key ring" application. You might find something neat enough to use that you'd like to share your experiences with other OS/2 users—in which case I encourage you to contact Craig, the reviews editor.

Happy hunting!

UNImaint bug fix

Filestar's Unimaint 5.0 is an OS/2 utility that can back up and restore your desktop, perform INI file maintenance, let you view and edit extended attributes, and uninstall applications. A new update is available at `www.filestar.com/pages/download.html`.

JNapster for OS/2

Napster connects you to an online community of MP3 users, and allows you to share music files. JNapster, a Java implementation that runs on OS/2, provides a GUI interface, and the OS/2-specific distribution includes an install script and desktop icon.

The JNapster home page is at `www.tux.org/~daneel/content/projects/10.shtml`. For more information on Napster see `www.napster.com`.

Pronews/2 Year 2000 updates

The native OS/2 newsreader, Pronews/2, formerly from Panacea Software, threw a few bugs when the year changed to 2000. For instance, all messages were posted sometime in the year 3900. Posts downloaded in 2000 were aged off immediately. And doing a Group/Refresh Newsgroup list asked the server for newsgroups since the year 100. Rather a bummer, we'd say.

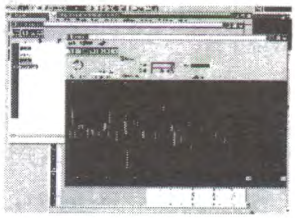
Fortunately, ProNews/2 users have a few choices on how to address the problems.

First, upgrade to ProNew/2 1.50B1, if you're not already using it (`http://hobbes.nmsu.edu/pub/os2/apps/internet/news/reader/pn2_15b1.zip`). Then get the new ProNews.dll file, which replaces the offending code, from `ftp://hobbes.nmsu.edu/pub/incoming/pn2_15b1_y2k_dll.zip`. Eventually this patch will be at `ftp://hobbes.nmsu.edu/pub/os2/apps/internet/news/reader/pn2_15b1_y2k_dll.zip`. This replacement DLL does not contain the spell checking code as the source available does not contain it.

Or, get the patch available from `www.tavi.co.uk/os2pages/oldsoft.html#ProNews` to patch your existing DLL. This method should retain the spell checker. Two versions of the patch are available: one for the DLL dated May 10, 1998 and one for the one dated May 8, 1998.

The DLL replacement respects the user's time zone setting.

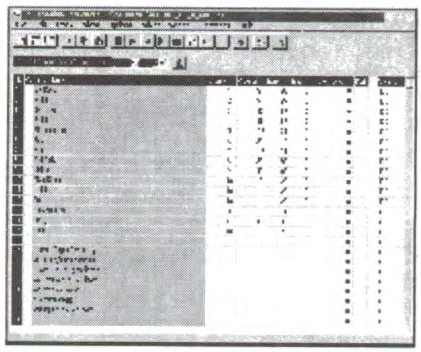
MIDI Station Sequencer



Christopher Hodges (`cdhodge@ibm.net`) announced MIDI Station Sequencer 2.0, a MIDI/Audio MIDI sequencer built specifically for OS/2.

This version has a new audio engine that allows direct-to-hard-disk recording and playback, full audio editing capabilities, and complete audio sequencing with full integration with MIDI sequencing.

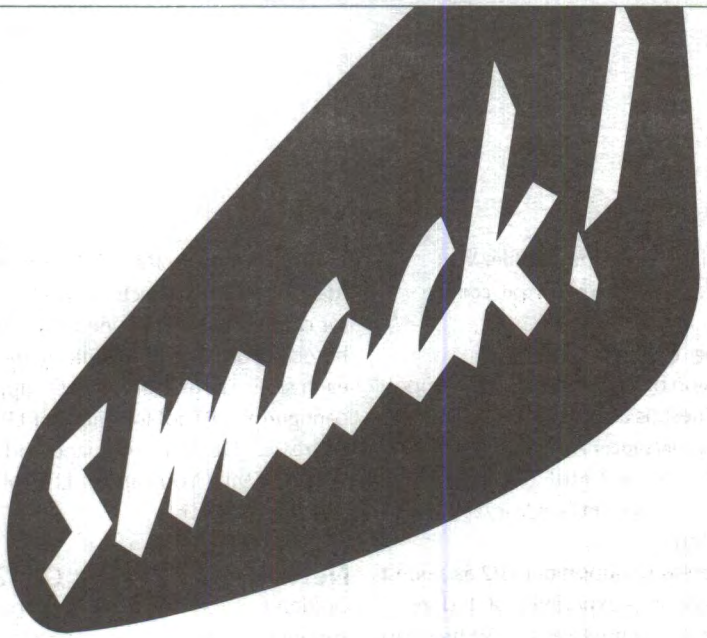
You can download the latest version at `www.dinosoft.it/~midistation/index.ht ml`. Unfortunately, the Web site gives no indication of pricing; this application may be free or it may be shareware.



ACVT

ACVT 1.0 (Archive Converter) converts archive files (like .zip files) from one archive format to another. ACVT extracts files from a source archive and packs them into a target file, and removes the original archive if the output file is successfully created.

ACVT program is available for DOS, OS/2 16-bit, OS/2 32-bit, and Windows 95 or later. Find it at `http://cdbf.hypermart.net/acvt`.



Perfect Niche Software, Inc.
6962 E. 1st Ave. #103, Scottsdale, AZ 85251
Sales: 800-947-7155 Fax: 602-949-1707
Email: sales@perfectniche.com
http://www.perfectniche.com

The labeling program for OS/2

Problem: junk email

Solution: Junk Spy

Junk Spy should be your secret agent in the war against spam.

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PMJPEG updated

PMJPEG is a shareware image viewer with image processing and conversion capabilities for OS/2. It's a 32-bit port of WinJPEG, which runs on OS/2 2.x and above, with the addition of OS/2-specific features.

The latest version ($20) adds support for PNG and Windows BMP Version 5 (uncompressed or RLE), fixes BMP compression options, and addresses a few bugs. PMJPEG is available at `www.pixvision.com`.

Free FTP/HTTP command line tools

Florian Auer (`f.auer@auer-signal.com`) developed a few FTP/HTTP command line tools for his own use and decided to share them with other OS/2 users. The author says, "They are beta at the moment, but if I see any interest in my work, I will improve them and add new features. They are all freeware and open source."

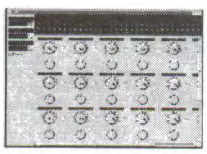
The following tools are available:

- mgetftp/gethttp downloads a ftp/http file
- extracturl extracts urls from a html file
- autogetftp tries to download files from a list of urls, until it can download one successfully
- htmlstrip removes tags from a html file

The tools require the emx runtime. You can find more information or download the files at `http://members.aon.at/os2warp`. If you use them—hey, at least drop the guy a line to say Thanks!

dBase Info

Goran Ivankovic (`dugal@pu.tel.hr`) released dBase Info 0.95, a free GUI viewer for DBF files with basic functions (GOTO, FIND, SUM, MAX, MIN, AVG).



The database file can be converted into SDF, ASCII, and HTM format. You can also select range (start and end record) and sort options (no sort, ascending or descending) in the output file. Visit `http://Goran_Ivankovic.tripod.com`.

VMware OS/2 Guest

A beta version of VMware 2.0, with support for OS/2 Guest, is available at `www.vmware.com/support/linux/doc/beta_linux/index_os2.html` and `www.vmware.com/support/win/doc/beta_win/index_os2.html`.

In this release, support of OS/2 as a guest operating system is experimental. It does not represent a commitment by VMware to deliver any future commercial versions of its software supporting OS/2. According to the company, this experimental product is being provided in response to customer requests, so VMware can learn more about OS/2 technical and market requirements. In other words: if this is important to you, download it now to demonstrate your support.

RxWav

Giorgio Vicario (`katobleto@geocities.com`) released a free REXX library for audio editing. You can use REXX to change volume, expand dynamic filtering, get info on RIFF wave files, and so on. A sample is included. Visit `www.geocities.com/katobleto` for more information.

LPTool

Jan van Wijk (`lists@fsys.demon.nl`) released LPTool 2.12, a free file tranfer utility. It uses a standard LapLink-style parallel cable connection (same cable as LapLink, Microsoft Windows' INTRSRV, etc.), mainly for synchronization of laptops that lack network connectivity. According to the developer, LPTool is not very fast (maximum 45 Kb/sec) but it's reliable.

LPTool supports remote execution of commands, including redirection of output—similar to TCP/IP REXEC.

At the moment, only an OS/2 version exists, so you cannot exchange files with a Windows or Linux machine.

In this version, the LPTS.CMD REXX macro performs directory synchronization (or complete trees) in one or two directions based on date and time information on each side. There is also better support for configuring LPTool for different LPT port addresses (DEVICE command and LPTDD.CMD) You can get LPTool from `www.fsys.demon.nl`.

Network Trace for OS/2

Golden Code Development Corporation announced Network Trace for OS/2, its network packet capture software for OS/2. With Network Trace, network administrators can turn every OS/2 machine on their network into a network probe. Easily accessible via existing remote management technologies, such as telnet, it enables trace data to be gathered on any segment of the network from a centralized location, in minutes. Since Network Trace is a software-only implementation, there is no need for dedicated hardware.

Network Trace for OS/2 offers:

- Hardware-independence. Network Trace can be used with a wide range of network hardware, such as 16/4 Token Ring, 10/100 Ethernet, wireless LANs, infrared, FDDI, and ATM. Because it is a software-only implementation, it will work with any speed adapter, including 100 Mbps Ethernet. This is achieved by interfacing with any NDIS 2.01 compliant MAC driver.
- Reliability. Network Trace works reliably in stressful environments, tracing WorkSpace On-Demand/RIPL boot storms of 40+ machines without dropping frames!
- Power. Network Trace forms the basis of a powerful, portable tracing solution when installed on a single, network-enabled notebook computer.

In an integrated configuration, any remote OS/2 machine can produce traces, when accessed from a central location using existing remote management technologies.

To support the widest range of customer environments, Network Trace has a command line interface. This simplifies remote use and enables automation via REXX. The trace files generated are Sniffer-compatible, making them readable by most existing network analyzer tools and with the forthcoming Golden Code Trace Analyzer.

Network Trace has minimal impact on system resources when it is dormant. Since it is an NDIS 2.01 protocol, Network Trace requires neither dedicated hardware nor a hardware key. In its standard mode of operation, it does not interfere with the normal network activity of the installed machine.

Additional information, including product brochures and documentation, is available at `www.goldencode.com`.

Resistor

Need to replace a resistor and don't know what the color-stripes mean? Always searching your resistor color reference card? Then you need Resistor (now at version 0.7).

You can find the files at `www.abyte.de/os`. The program is in German, but you might be able to use it in another language. One tip to get you started: to select the resistor series (E6 ... E96), click on the corresponding field.

KeyRing/2

IDK, Inc. announced KeyRing/2, a secure password keeper for OS/2.

KeyRing/2 is a secure database for all your passwords, product registration codes, lock combinations, bank PINs, you name it. By entering a single master password, you instantly retrieve all your passwords and secrets.

The USA/Canada version of the program uses Blowfish (448 bit) encryption. This military-grade encryption technology is generally much stronger than the password security algorithms used in the Web pages and applications you access.

The export version of KeyRing/2 uses DES (48 bit) to encrypt your secrets and is user-upgradable to 448 bit encryption, if the US encryption export laws allow.

KeyRing/2 can interact with your clipboard, allowing you to cut/paste your passwords into any program running on your desktop. It can automatically launch Netscape Communicator and open your favorite web sites that require passwords.

For an INF file with all the details—except, mysteriously, shareware pricing—see `www.idk-inc.com/kr2index.htm`.

DTSaver

DTSaver is a free REXX script that automatically saves os2*.ini files, config.sys, and desktop structure at system start-up.

DTSaver uses zip.exe (Info-Zip). Otherwise, it is a plain REXX script that will run on any OS/2 system with REXX support installed.

DTSaver saves back-up files in discrete archives with a number appended. If you use it at boot, it will effectively show how many times you booted on day n.

You can set the number of back-ups to accumulate before purging. You can set the number of files to purge as well.

DTSaver also creates a cumulative report file that shows the file attributes for the os2*.ini and config.sys. You can use this report to track the sizes of these files.

DTSaver is at `www.cyberus.ca/~muses9`.

IMAGHTML

Julian Thomas updated IMAGHTML, his free REXX program, which builds an HTML file which shows all images in a particular directory. The new version uses a browser to scale images that exceed a preset limit. The program also has the option to call Netscape to view the result after the HTML file is built. At `http://home.epix.net/~jt`.

Ghostscript 6.0

Only two days after the Linux and Windows versions of Ghostscript 6.0 was released, a port was released for OS/2. Ghostscript is a PostScript interpreter which can also produce PDF files. Find the files at `ftp://ftp.cs.wisc.edu/pub/ghost/aladdin/gs600`.

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DP Show

Lone Peak Automation released DP Show, a slide show and presentation tool with wireless remote control capabilities.

DP Show lets you create and edit slide shows. It can display pictures original size or scale them to full screen.

Slide sequence can be controlled with the keyboard or mouse, you can use a wireless keychain controller with an X10 home automation interface. With the wireless keychain controller, you won't have to reach for the computer to advance to the next slide. You can forward, reverse, stop and jump to slide remotely.

Find out more about DP Show at `http://home.att.net/~ASchw/dpshow.h tml`.

rpm for OS/2

SAWATAISHI Jun (`jsawa@attglobal.net`) ported rpm (Red Hat Package Manager) version 3.0.3 to OS/2. You can extract or install files from Linux CD-ROM discs or Linux FTP sites. You can also make rpm packages for OS/2 users.

You can get a copy of the OS/2 version from `www2s.biglobe.ne.jp/~vtgf3mpr/inde x-e.htm`.

Java 1.1.8 refresh

A new service refresh of Java 1.1.8 for OS/2 is available. The build version (o118-20000201) can be accessed at `ftp://ftp.hursley.ibm.com/pub/java/fix es/os2/11/118`.

According to IBM, the refresh includes the following fixes:

- IOException: could not create directory. Extracting jar
- Loss of focus when disposing print dialog
- JAVAP displays classes as 'Synchronized'
- JIT fails to evaluate instruction correctly
- Scroll Bar problems with over 50 pieces of mail
- JIT makes process fail with UnknownError
- JIT javax.dll trap
- Process hangs with high CPU use and JIT on.
- java.lang.OutOfMemoryError exception
- javac creating illegal code resulting in "undefined upcode" error
- Print resolution problem
- Erroneous OutOfMemoryErrors with JITC
- Track Rectangle draw problem

New newspaper for software development managers

Alan Zeichick and Ted Bahr, who brought you Miller Freeman's *OS/2 Magazine* a few years ago, have teamed up, formed their own start-up publishing company (BZ Media), and launched *Software Development Times*, which they're calling "the first newspaper of record for the software-development industry."

Published twice monthly, SD Times is geared towards enterprise managers: there's no source code or programming tips, just the cross-platform news that business decision-makers need to help plan their applications development strategy.

The first issue of SD Times hits the streets February 23, 2000. Subscriptions are free to qualified individuals. For more information, see their Web site at `www.sdtimes.com`.

Warpstock 2000 in Philadelphia

press release

The Board of Directors of Warpstock, Inc. announced that Philadelphia, Pennsylvania has been selected as the site for Warpstock 2000, the fourth annual Warpstock event, during the weekend of September 9-10, 2000.

OS/2 users from around the world are invited to Philadelphia, the birthplace of American freedom, to "celebrate their freedom to make OS/2 their operating system of choice," according to Paul Hethmon, President of Warpstock, Inc.

Final details are still being arranged, but "a walk-though of the Warpstock 2000 site has already been completed, and it looks good," said Stan Sidlov, Treasurer of Warpstock, Inc. Once the final arrangements are in place, another announcement will be made, and details will be posted on the Warpstock Web Site, `www.warpstock.org`.

Network Trace™ for OS/2® by Golden Code Development is software designed to reduce the cost of ownership of your OS/2 network. It enables any OS/2 machine on your network to capture all network traffic to a file for later analysis. Network Trace makes it easy to gather traces, whether on your local segment, or on the most remote segment of your WAN. You can now have the benefit of a hardware network probe on each of your network segments, but with a software-only implementation. You leverage the hardware you already have, and the software is deployed easily through standard software distribution.

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Network Trace is a software-only, hardware-independent implementation.

Take a trace on any segment in the network, in minutes.

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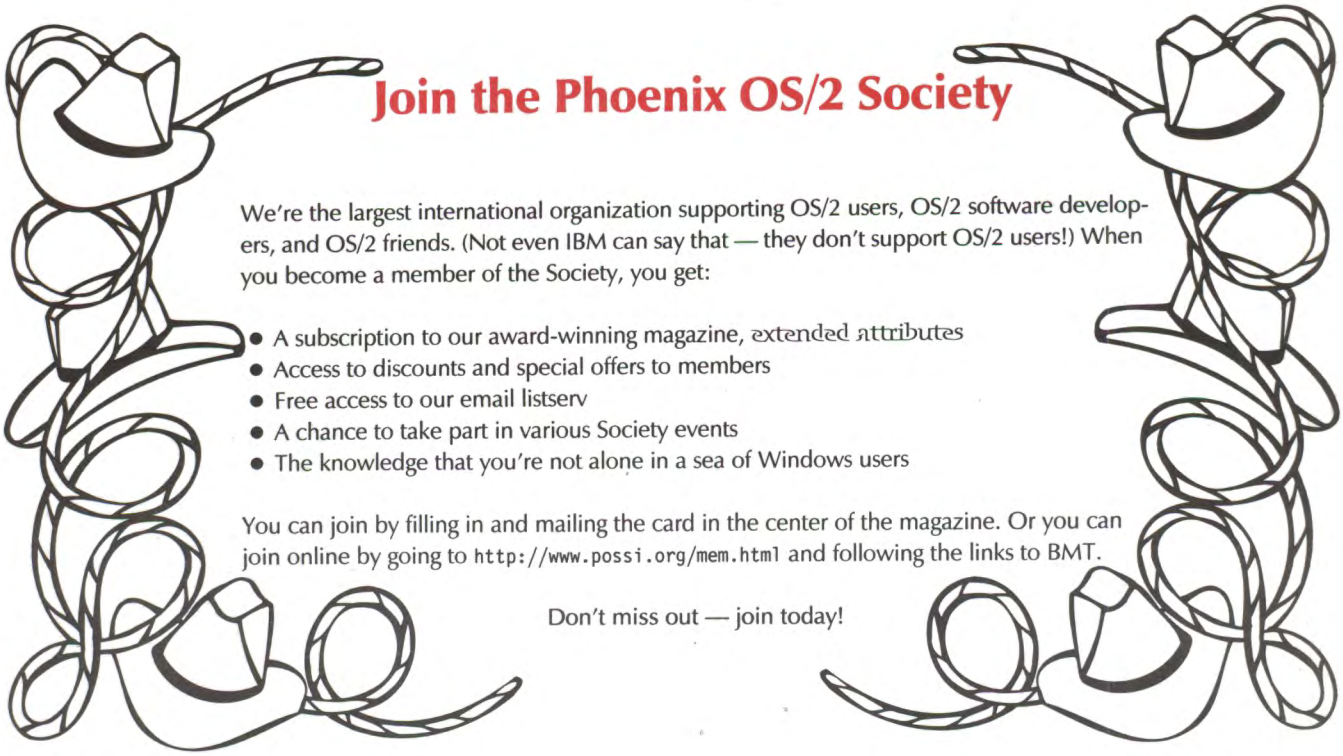

Join the Phoenix OS/2 Society

We're the largest international organization supporting OS/2 users, OS/2 software developers, and OS/2 friends. (Not even IBM can say that — they don't support OS/2 users!) When you become a member of the Society, you get:

- A subscription to our award-winning magazine, extended attributes
- Access to discounts and special offers to members
- Free access to our email listserv
- A chance to take part in various Society events
- The knowledge that you're not alone in a sea of Windows users

You can join by filling in and mailing the card in the center of the magazine. Or you can join online by going to `http://www.possi.org/mem.html` and following the links to BMT.

Don't miss out — join today!

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